WHAT IS CLAIMED IS:

Sub A4

~~1.~~ An apparatus for mounting a cutting tool used in mining, road working or earth moving comprising: a bit holder, a protective wear sleeve for reducing wear between the cutting tool and said bit holder, said protective wear sleeve having an outer surface that is adapted to being received in said bit holder, said wear sleeve including a rearward disc end portion, an annular groove portion and a forward tapered portion whereby once said protective wear sleeve is set in said bit holder by axial blows with a hammer said protective wear sleeve will remain in said bit holder without relative rotational or axial movement between said protective ~~wear sleeve and~~ said bit holder.

Sub C1

2. The apparatus according to claim 1 wherein said forward tapered portion is tapered at an angle of between 5.5-7.0 degrees from a central axis of the wear sleeve.

Sub A5

~~3. The apparatus according to claim 2~~ further ~~comprising:~~ a retainer positioned around said ~~annular groove of the wear sleeve~~.

4. The apparatus ~~according to claim 1~~ further comprising: ~~retainer~~ for attachment to said ~~wear~~ sleeve around said annular groove.

Sub C1

5. The apparatus of claim 2 wherein ~~said~~ bit holder includes a cavity bore having a forward tapered portion and a rearward cylindrical portion for cooperatively receiving said wear sleeve.

6. The apparatus of claim 5 wherein said forward tapered portion of the bore is tapered at an angle of between 5.5-7.0 degrees from a central axis of the cavity bore.

Sub A6

7. The apparatus of according to claim 1 wherein the wear sleeve has an external portion adjacent to the forward tapered portion that extends beyond said bit holder, said wear sleeve external portion has a shoulder and a rounded undercut portion between said shoulder and said forward tapered portion of said wear sleeve, whereby when said wear sleeve is subjected to large loads and torques the rounded undercut portion weakens and fails first.

8. The apparatus according to claim 4 wherein said retainer is generally a cylindrical split sleeve retainer having beveled portions at both ends of said cylindrical retainer, whereby said beveled end portions compress when inserted into said bit holder, said beveled ends help bias said cylindrical split sleeve outwardly away from said wear sleeve.

Sub C1

9. The apparatus according to claim 8 wherein said retainer beveled portions are initially angled at 25 degrees with respect to the central axis of said cylindrical retainer.

Sub A7

10. An joint coupling comprising:

a female member,

a male member,

said male member having an outer surface that is adapted to being received in said female member, said male member including a rearward disc end portion, an annular groove potion and a forward tapered portion whereby once said male member is set in said female member said male member will remain in said female member without relative rotational or axial movement between said male member and said female member.

11. The joint coupling according to claim 10 further comprising: a retainer positioned around said annular groove of the male member.

~~12. The joint coupling according to claim 10~~ further comprising: retainer for attachment to said ~~male member around said~~ annular groove.

13. The joint coupling according to claim 10 wherein said female member includes a cavity bore having a forward tapered portion and a rearward cylindrical portion for cooperatively receiving said male member.

~~14. The joint coupling claim 12~~ wherein said forward tapered portion of the bore is tapered at ~~an~~ angle of between ~~8-11~~ degrees from a central axis of the ~~cavity bore~~.

~~15. The joint coupling according to claim 10~~ wherein the male member has an external portion adjacent to the forward tapered portion that extends beyond said female member, said male member external portion has a shoulder and a rounded undercut portion between said shoulder and said forward tapered portion of said male member, whereby when said male member is subjected to large loads and torques the rounded undercut portion ~~weakens and fails first~~.

16. The apparatus to claim 11 wherein said retainer is generally a cylindrical split sleeve retainer having beveled portions at both ends of said cylindrical retainer, whereby said beveled end portions compress when inserted into said female member, said beveled ends help bias said cylindrical split sleeve outwardly away from said male member.

17. The joint coupling according to claim 16 wherein said retainer beveled portions are initially angled at 25 degrees with respect to the central axis of said cylindrical retainer.

18. ~~A cutting tool assembly comprising:~~

a bit holder,

a protective wear sleeve for reducing wear between the cutting tool and said bit holder,

said protective wear sleeve having an outer surface that is adapted to being received in said bit holder, said wear sleeve including a rearward disc end portion, an annular groove portion and a forward tapered portion whereby once said protective wear sleeve is set in said bit holder by axial blows with a hammer said protective wear sleeve will remain in said bit holder without relative rotational or axial movement between said protective wear sleeve and said bit holder.